

Chico

"Dedicated to Public Service"

THE RADIATOR

W6RHC
IRLP #8170

www.gearsw6rhc.org

P.O.Box 202 Chico, CA 95927

August 2020 Newsletter

GEARS Founded August 13, 1939

This month we celebrate 81 years since we were founded by eleven Amateur Radio operators from throughout the Northern Sacramento Valley. While we have faced many challenges in those years, the COVID-19 virus precautions are unlike anything we have had before. This continues requiring cancelation of most events. None of us like this situation, however we will do our best to keep members safe and healthy.

The OARS Steak Bake has been postponed until next year. Hopefully things will get back to normal by then.

In this newsletter, I've included some photos from previous GEARS events.

We will continue to hold the GEARS general meeting online via Zoom video and phone conference. We will send you an email with the link.

Please be assured that we feel Zoom meetings are safe. The security issues that some users were concerned about have been resolved. Of course you can also participate by phone, which is as safe as any phone call.

We will also hold the August general and board meeting online. Watch your email for a link and phone number.

Please try to participate in the local nets, at least we can get together by radio.



'73
Jim Matthews K6EST
jiminchico@yahoo.com
530-893-3314



Join GEARS on Facebook
www.facebook.com For
timely news and additional
information.

August 2020 Calendar

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2 8pm OARS Net VEC Testing Chico	3 7pm GARS Net 8pm ARES Net	4 7:30pm GEARS Net	5	6 7pm PARS Net 7:30pm Simplex Net	7	8 GEARS Board Meeting online
9 8pm OARS Net	10 7pm GARS Net 8pm ARES Net	11 7:30pm GEARS Net	12	13 7pm PARS Net 7:30pm Simplex Net	14 7pm GARS & OARS Meetings	15
16 8pm OARS Net	17 7pm GARS Net 8pm ARES Net	18 7pm ARES meeting 7:30pm GEARS Net	19	20 7pm PARS Net 7:30pm Simplex Net	21 7pm GEARS Meeting online	22
23 / 30	24 / 31 7pm GARS Net 8pm ARES Net					

VEC Testing, FCC License Exam available by appointment. For information or registration call Tom Rider, W6JS 514-9211

Chico Breakfast Cancelled until things settle down with the COVID-19 virus.

GEARS Board Meeting 2nd Saturday online.

OARS Meeting Second Friday of the month, TBD (To Be Determined)

GARS Meeting Second Friday of the month, TBD

Butte ARES Meeting 3rd Tuesday, TBD Contact Dale Anderson, KK6EVX 826-3461 for more information.

GEARS Meeting, third Friday of the month, online till further notice pm, meeting at 7:00 pm.

OARS Breakfast 4th Saturday of the month TBD

NETS:

OARS Club Net Sunday 8pm 146.655 Mhz - PL 136.5

GARS Club Net: Monday, 7:00 pm 147.105 MHz + PL 110.09

Butte ARES Net Mondays 8pm 145.290 MHz - PL 110.9

Yuba Sutter Club Net Monday 7pm 146.085 MHz + PL 127.3

GEARS Club Net Tuesdays 7:30 PM 146.850 MHz - PL 110.9

PARS Club Net Thursday 7pm 145.290 - PL 110.9

Simplex Net Thursday 7:30 p.m. 146.52 no tone

Yuba Sutter ARES Net Thursdays 7pm 146.085 MHz + PL 127.3

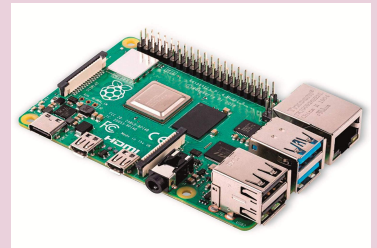
Sacramento Valley Traffic Net Nightly 9:00 PM 146.850 MHz - PL 110.9

Slice of Pi

Our July online meeting Raspberry Pi tutorials will continue.

Please let us know your interests in this computer and what lessons or applications you would like to hear.

If you have any questions or comments contact Rick Hubbard KI6VOS at rick.hubbard.email@gmail.com.



Mt. St. John

Our new repeater on Mt. St. John is now working much better.

Michael Favor N6FAV and Mike Mike Ellithorp KF6OBI worked on the mountain. They replaced the feedline and also set the tone on the repeater output. Activate the CTSS on your radios and give the repeater a try.

You should be able to work the repeater in the valley from a handheld radio.

145.410 Mhz PL is 123.0 Negative offset.



GEARS Century Club Members

Rick Hubbard
Bennett Laskey

Thank you very much for your extra support

Solar Cycle Online Tool



NOAA has released a new interactive tool to explore the solar cycle. It lets you scroll back through time, comparing sunspot counts now to peaks and valleys of the past. One thing is clear. Solar Minimum is here, and it's one of the deepest in a century.

Solar Minimum is a natural part of the solar cycle. Every ~11 years, the sun transitions from high to low activity and back again. Solar Maximum. Solar Minimum. Repeat. The cycle was discovered in 1843 by Samuel Heinrich Schwabe, who noticed the pattern after counting sunspots for 17 years. We are now exiting Solar Cycle 24 and entering Solar Cycle 25.

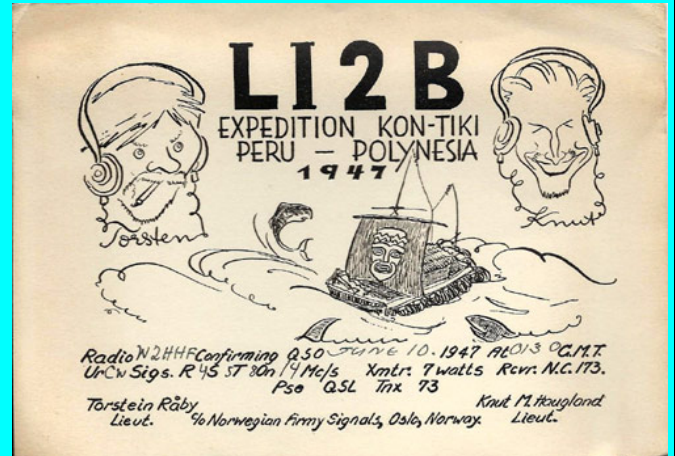
In 2019, the sun went 281 days without sunspots, and 2020 is producing spotless suns at about the same rate. To find a year with fewer sunspots, you have to go all the way back to 1913, which had 311 spotless days. This makes 2019-2020 a century-class Solar Minimum; solar flares are rare, geomagnetic storms are almost non-existent, and Earth's upper atmosphere is cooling.

The online tool is here: <https://www.swpc.noaa.gov/products/solar-cycle-progression>

“Most Unusual Expedition” Ever to Rely on Amateur Radio. The Kon-Tiki Expedition

August 7, 1947, the maritime mobile station LI2B concluded its journey from South America by washing ashore on an island in French Polynesia. It was better known as the Kon-Tiki, a raft constructed largely from balsa logs. Norwegian explorer and ethnologist Thor Heyerdahl wanted to prove that people from South America may have migrated to Polynesia, and he took Amateur Radio along on his ocean journey.

A December 1947 QST article, “Kon-Tiki Communications, Well Done!” called the trip the “most unusual expedition ever to place reliance on Amateur Radio for communication.” The Kon-Tiki departed Peru for Polynesia on April 28, 1947. “It was the theory of Heyerdahl, the leader of the venture, that the settlement of the Pacific Islands resulted from a migration of American peoples who had sailed there many years ago, rather than a trek from Asia as claimed by other scientists,” the QST article explained. Much later DNA evidence proved that Heyerdahl’s assumptions were at least partially correct.



The expedition carried three watertight radio transmitters — one for 40 and 20 meters, one for 10 meters, and a third on 6 meters. Each unit used 2E30 tubes, providing 10 W of RF input. (There was back-up radio gear aboard as well.) The Kon-Tiki also had onboard a National NC-173 receiver. Dry batteries, which proved problematic during the voyage, and a hand-cranked generator for additional power. The QST article pointed out that proximity of the craft’s deck to salt water and the relatively small protection afforded by the thatched bamboo cabin meant that the radio gear would have to withstand the effects of moisture. As the article explained, C. F. Haddock, W1CTW, and H. A. Gardner, W1EHT, of the National Radio Company engineering staff took these considerations into account when designing and constructing the transmitting gear. The operators were Torstein Raaby and Knut Haugland, neither of whom with ham radio experience but both veteran radio operators.

For three weeks following the crew’s departure from Peru, the only radio contact Kon-Tiki had was with OBE, the station of the Peruvian Naval School. LI2B kept to a schedule, trying to contact key amateur stations on specified frequencies without success. Finally, on May 20, Harold Kempel, W6EVM, heard and worked LI2B on 14.142 MHz, providing the raft with its first North American contact. By mid-June, LI2B had worked numerous amateur stations, and as the trip progressed, a long-haul network of amateur stations developed. One of the network regulars was W3YA, the Penn State Amateur Radio Club station, which helped relay traffic to the Norwegian embassy in Washington. In the final month of the voyage, the 20 meter transmitter’s crystals all had failed, so the crew re-tuned the 10 meter transmitter to 13.990 MHz, the closest they could get to 20 meters.

One-half hour after being stranded, the QST article recounted, LI2B was fortunate to contact ZK1AB on Raratonga, who was asked to communicate with the Norwegian Embassy if LI2B was not heard within the next 36 hours. In his book Kon-Tiki, the basis for an Academy Award-winning documentary of the same name, Heyerdahl described the rush to make contact after landing on the reef, including the crew’s despair as the NC-173 slowly dried after getting soaked in the shipwreck, gradually receiving at higher and higher frequencies until eventually settling on a frequency high enough to make contact. The Amateur Radio transmitters still not operational, the operators employed a military transmitter powered by the hand-crank generator. Just before the specified period ended, LI2B contacted WOMNU, who relayed news of the landing, avoiding the need to send out rescue parties.

Netflix currently has the movie “Kon Tiki” about this expedition, it’s worth watching.

From Arrl.com

So You Still Have Your License but Haven't Operated in Years: A Guide to Getting Back into the Hobby

By Anthony Luscre, K8ZT

So I'm asking for your help. Please dig out that old club roster, find the Hams who have not been active, and email them this article. If you don't have an email address for them, print out a copy, and mail it to them. You might just make an old friend's day and reawaken a dormant Ham.

To the inactive Hams out there, I would like to welcome you back on the air. It's time to dust the cobwebs off that old equipment or acquire new gear to replace what you sold or gave away. Much about the hobby is still the same, but a few things have changed thanks to computerization, online activities, and other advances in the world of telecommunications. As you will notice, many of the changes involve three-letter Acronyms or Initialisms, such as DMR, SDR, and FT8.

VHF/UHF FM and Repeaters

Let's start with 2M, 440 MHz, and your local repeaters. Most of the repeaters are still there, but you may find four big changes.

Repeaters are not as busy as they used to be, mainly due to cellphone use. Previously they were one of the only ways to keep in touch with other Hams when we were out of the house or in the car.

Most repeaters no longer have Autopatch. This connection to a phone line allowed us to phone home via the repeater to non-Ham family or friends. Again, you can thank cell phones for this.

Some repeaters have switched from analog to Digital FM or added digital to existing analog setups. D-STAR, DMR, C4FM, and other digital protocols have become very popular. These systems allow repeaters around the world to be linked, so that VK4ABCD callsign from Australia you heard on the local 2M repeater was real!

EchoLink uses VoIP (Voice Over IP) and allows voice QSOs between Hams. When coupled with a repeater, it allows operators from around the world to access and use a local repeater. EchoLink operates in one of two modes. In Single User mode, EchoLink provides point-to-point communications over the Internet between two Hams using computers. In Sysop mode, a VHF or UHF radio is interfaced with the computer and used to connect to a local repeater, just as anyone using an HT or base station would.



Both of our GEARS VHF repeaters operate on the Yaesu C4FM analog / digital system. It's very easy since it operates exactly the same as analog. You can transmit in either analog or C4FM digital and the repeater output is always standard analog FM.

It has never been easier and less expensive to get back on the air. Get a basic VHF radio, add a power supply and an antenna, and you are set. For a 25 watt radio, you only need a 3 amp power supply. For repeater use, the antenna doesn't have to be complicated or expensive. You can operate locally with a mag-mount antenna on a cookie sheet. Just get back on the air, you can always upgrade later.



If you need help, reach out to your fellow GEARS members. Next month we will talk about getting back on HF.



GEARS 50th Anniversary Hamfest August 13, 1989
Elks Lodge Picnic area Chico. Hamfest committee,
Jack La Fiesh KF6KJ, Fred Swift KJ6LM, Boyd Hart
WA6LME, Steve McDermott K6AKF chairman.



1989 YLRL Display, Elizabeth James KA6NZK,
Jackie van de Kamp W6YKU



Aug 13, 1989 GEARS Hamfest Swap Meet



1969 Steak Bake. Willie W6CKV, Jackie W6YKU,
Edith, Tom W6SYX, Kathy, Nancy, Rob, Park &
Doug.



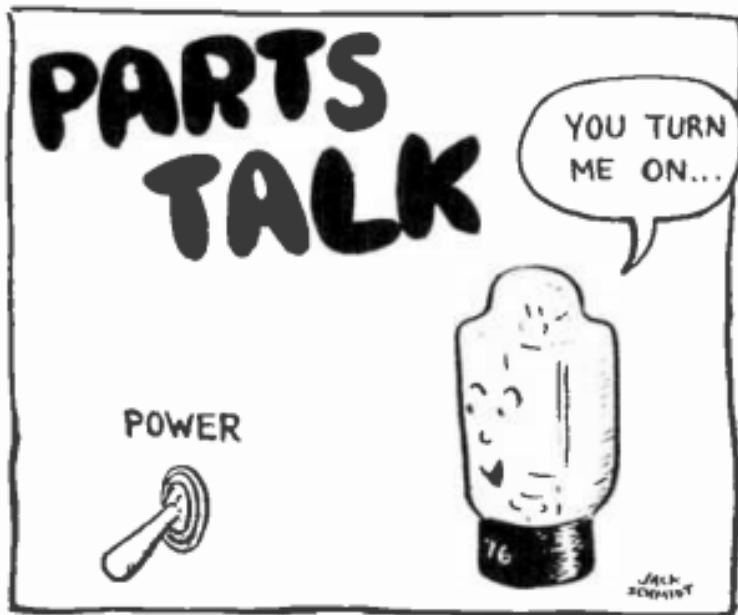
Steak Bake 1982 Elks Lodge



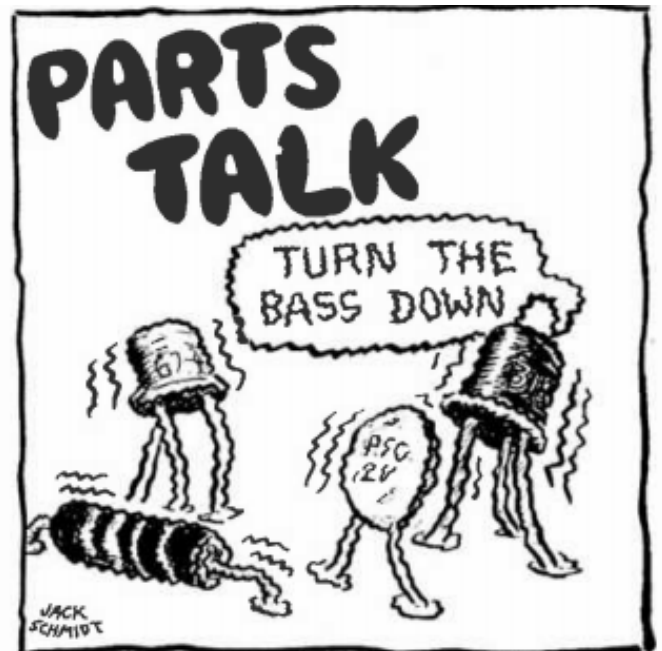
1981 Jane K6RLR, Muriel K6GSK, Bill W6TKE

Club Officers:

President.....Jim Matthews, K6EST
 Vice-President.....Kent Hastings, WA6ZFY
 Secretary.....Susan Check, KE6LTY
 Treasurer.....Kathy Favor, K6FAV
 Director.....Rick Hubbard, KI6VOS
 Director.....Dale Anderson, KK6EVX
 Director.....Bennett Laskey, K6CEL
 Past President.....Tom Rider, W6JS
 VEC.....Tom Rider, W6JS



POPULAR ELECTRONICS



December, 1969